Rochester Energy Commission

September 9th, 2020

Welcome Back!

Agenda

- Approve Minutes, July
- Public Comment Opportunity
- Energy Commission Comment Opportunity
- Old Business
- New Business
- Energy Action Pan

Old Business

- Energy Commission Vacancy Update
  - Wesley Varela appointed
- DES Analysis – Formal Vote & Letter of Support
- Web Page Outline – Formal Vote of Approval
- Any additional wrap-up from August meeting?

Old Business: DES Analysis

Purpose

- Provide an update of the system evaluation analyses
- Propose a recommended path forward for City building heating and cooling needs

Why are we evaluating the building's heating and cooling needs?

- City buildings are heated (and cooled) by a steam line connected to the Olmsted County Waste to Energy Facility (OWEF)
- Steam line has reached the end of its useful life and costs ($30M) to replace

Project Approach	First Cost ($)	Operating Cost ($)	Energy Savings (%)	GHG Savings (metric tons)	Simple Payback (yrs)
OWEF – Replace in kind	$30M	-	-	-	-
OWEF – Install HHW/ CHW system	$45M	-	-	-	-
Buildings – Steam Heat and Cooling (baseline)	$6.3M	$634,873	-	4,193	-
Buildings – Gas Heat and Electric Cooling	$6.6M	$555,304	28.0%	3,439 (18.0%)	4.0
DES – 180 Deg F System (Recommended)	$9.9M*	$508,235	29.5%	3,209 (23.5%)	10-25*
DES – 120 Deg F System	$12.8M	$499,715	31.4%	3,146 (25.0%)	48.5
DES – 120 Deg F System with geothermal	$19.4M	$596,374	57.8%	3,178 (24.2%)	340

Old Business: DES Analysis

City Staff Recommended Path Forward

1. 180 Deg HW and CHW Loop System
   - Move forward with schematic design of this option with RPU
   - Budget included in 2021 CIP for consideration
   - Request DMCC support for plant expansion necessary to accommodate future private development
2. Backup Plan: High Efficiency Building-based system

Energy Commission

- Vote on whether to support this concept and next phase of analysis
- Send formal letter of support to City Council

Old Business

- Review Webpage Outline

New Business

- Step/Stretch Code
  - 2018 Residential Energy Code
  - Legislative Priorities & League of MN Cities (LMC)
  - City Step Code Planning Team
  - Natural Gas Advisory Board
- EV Initiatives
  - ReCharge MN Pledge & Participation
  - Cities Charging Ahead 2.0

EAP: Transportation

Priorities

- Evaluate transit conversion
- Electric charging stations & solar charging stations
- Increase public transit, reduce single occupancy trips
- Develop transportation corridors, nodes and parking to minimize VMT

EAP: Transportation

Voted Actions & Strategies

- **Evaluate transit conversion**
- **Electric charging stations & solar charging stations**
  - Install EV charging stations at libraries, community centers and other municipal locations
  - Adopt a Green Fleet procurement policy
- **Increase public transit, reduce single occupancy trips**
  - Provide real-time transit and traffic information
  - Encourage employers to offer financial incentives for transit use, implement flex time to alter workday hours around transportation
- **Develop transportation corridors, nodes and parking to minimize VMT**
  - Implement infrastructure improvements including "complete streets" to facilitate alternative transportation modes for all travel trips
  - Implement transit-oriented development within Transit Priority areas

Next Meeting

October 14th, 2020

- Discuss Future Agenda Items

Appendix: EAP Priorities & Strategies

EAP Priorities: Electric & solar charging stations

Pursue Federal, State and local incentives for EV infrastructure

- EVConnect
- Federal Highway Administration
- Thriving in the North
- U.S. Department of Energy; Energy Efficiency and Renewable Energy
- MPCA

EAP Priorities: Electric & solar charging stations

Install EV charging stations at libraries, community centers and other public-facing City buildings

Massachusetts Plug-in Electric Vehicle Program

- Public EV charging stations grew from 33 in 2011 to 596 in 2016, by a variety of venues including retail, short and long term parking, workplaces, dealerships, hotels, schools, recreational facilities and hospitals
- Number of personal EVs grew from under 100 in 2011 to 5,610 in 2016, 39% of which were battery EVs
- Clear correlation between where EVs are registered and where they publicly charge

DOE Office of Scientific & Technical Information – Impact of Public EV Charging Infrastructure

- Nationwide focus
- Correlation between awareness of charging stations and acceptance of EVs suggests we need more stations
- For public infrastructure, charging outside of home is inconvenient, workplace-type charging considered convenient

EAP Priorities: Electric & solar charging stations

Adopt EV-ready building codes & streamline permitting for EV charging

- Need this to build out infrastructure
- Examples include:
  - Charging stations required for certain percentage of parking spaces
  - Parking spaces must have an electrical conduit and wire to run electricity to charging stations in the future
  - EV-ready marked electrical panels near parking spaces
  - EV Ordinance: Requires a percentage of spaces in private and/or public parking facilities be designed and built with the necessary infrastructure

Publish & implement recommendations from EV Fleet Study

- Completed the study, could publish it

EAP Priorities: Electric & solar charging stations

Adopt a Green Fleet Procurement Policy

- Can base off our EV fleet study
- Chula Vista Municipal Fleet Electrification Study
  - Acquisition of 34 new EVs set to reduce annual fuel and maintenance costs by an estimated 50% in comparison to comparable ICE vehicles
  - Estimated cost to fuel the new EVs is 61% lower compared to the vehicles being replaced
  - Addition of 34 will yield estimated 80% reduction in GHG emissions

EAP Priorities: Increase Public Transit, Reduce SOV

Provide real-time transit & traffic information

- Reduces perceived wait time and actual wait time
- Commuters know what to expect/can plan routes, encourages use of public transit
- DoubleMap app, used by RPT to communicate real-time info

Case Studies

Seattle

- Users waited 2 minutes less than those using traditional schedule info
- Increased average number of transit trips by at least one trip per week for 35% of survey respondents
- Increased overall satisfaction with public transit for 92% of respondents

Chicago

- Average route-level weekday bus ridership increased 2% the year after tracking system implemented
- Weekday ridership increased by an average of 126 daily rides compared to routes without info

EAP Priorities: Increase Public Transit, Reduce SOV

Encourage employers to offer financial incentives for transit use, implement flex time to alter workday hours around transportation

- RPT presenting to Green Team this month, possibly pilot of program through Arrive Rochester app
- RPT currently offers employers a discount on annual passes for those who have 10% or more of their employees using the bus

Encourage employers to expand bicycle parking and offer/give access showers

- Find incentives or grants for financial assistance

Provide vulnerable populations with transit cost offsets

- Discuss feasibility with RPT, currently only offered to seniors & persons with mobility disabilities
- Could expand to include students, low-income, persons receiving SNAP benefits, etc.

Expand bike, scooter and car share programs

- Identify additional locations for bike share program, ways to increase program use
- Identify new opportunities for car share programs

EAP Priorities: Develop transportation corridors…

Implement infrastructure improvements including "complete streets" to facilitate alternative transportation modes for all travel trips

- Rochester has an adopted resolution
- Broadway corridor study

Implement transit-oriented development within Transit Priority areas

- TOD studies have been completed in Rochester
- Other Example: Rosslyn Ballston Corridor, Arlington, VA
  - Assessed value of land around stations increased 81% in 10 years
  - 50% of residents take transit to work, 73% within walking distance to stations

EAP Priorities: Develop transportation corridors…

Implement pricing strategies for public parking

- Dynamic pricing or congestion pricing that charge a higher price during peak demand hours

Case Studies

Stockholm City Center

- Immediate 22% drop in vehicle trips
- Decrease in travel times
- Large shift to public transit, 9% rise in inner-city bus ridership
- 14% decrease in inner-city exhaust emissions

Oregon.gov Research – Parking Demand Management

- Highly-correlated inverse relationship between increasing on-street meter charges and decreasing SOV use, similar effects observed for off-street parking monthly rates and daily charges
- Parking prices are most effective at reducing parking demand when changes primarily affect commuter and when high-quality transit alternatives to SOV are available
- Lower-income populations more sensitive to price changes, carefully consider pricing programs or identify strategies to reinvest revenues in the communities affected